

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method of transferring data comprising the following steps:
 - a) transmitting, at a transmission frequency that is continuously-variable and is not selected *a priori*, data that includes synchronization bits and bits conveying other information; and
 - b) receiving said transmitted data by the following steps:
 1. ascertaining transmission frequency by sampling the bit width of at least some of said synchronization bits; and
 2. receiving, at the ascertained transmission frequency, said bits representing other information;

wherein said data comprises a packet that includes two or more words each containing synchronization bits, and wherein step b) is conducted on at least two words containing synchronization bits, and wherein said at least two words containing synchronization bits are separated by one or more words containing said bits conveying other information, and wherein said data comprises a packet that includes two or more words each containing an initial non-alternating portion followed by a series of alternating synchronization bits.
2. (canceled)

3. (previously presented) The method of claim 1, further comprising the steps of:
 - a) establishing a system that includes a bus having encountered transmission conditions limiting the possible transmission frequency on said system, which conditions are not known in advance of establishing said system but are encountered after establishment of the system, wherein said steps of transmitting and receiving are performed over said system; and
 - b) if said transmission frequency exceeds said possible transmission frequency under said encountered transmission conditions, altering said transmission frequency so as to equal a frequency that is within said possible transmission frequency under said encountered transmission conditions.
4. (canceled)
5. (original) The method of claim 3, wherein said bus is a 2-line serial bus.
6. (original) The method of claim 1, wherein said step of transmitting is performed by a master device, and said step of receiving is performed by a slave device.
7. (previously presented) The method of claim 6, further comprising the step of transmitting other data back from said slave device to said master device at a transmission frequency determined in step b) of claim 1.

8. (previously presented) The method of claim 7, wherein commands are transmitted in step a) of claim 1 and said other data are responsive to said commands.
9. (original) The method of claim 6, wherein said slave device is a detonator and said master device is a blasting machine.
10. (previously presented) The method of claim 1, wherein said sampling is effected by the use of a counter/timer monitoring transitions in voltage level.
11. (previously presented) The method of claim 10, wherein sampled synchronization bits' widths are averaged together.
12. (previously presented) The method of claim 1, wherein within at least one word containing synchronization bits, said synchronization bits precede said bits conveying other information.
13. (currently amended) A device capable of receiving data at a frequency that is continuously-variable and is not selected a priori, said data including synchronization bits and bits conveying other information, said device including electronic circuitry that includes means for ascertaining transmission frequency by sampling the bit width of at least some synchronization bits and means for receiving subsequently transmitted bits at the ascertained transmission frequency; wherein said device is a slave device, and said data is from a master device, and wherein said data comprises a packet including two or more words each containing synchronization

bits, and wherein said means for ascertaining transmission frequency samples the bit width of at least some synchronization bits of multiple words of said packet, and wherein said sampled multiple words are separated by one or more words containing bits conveying other information, and wherein said data comprises a packet that includes two or more words each containing an initial non-alternating portion followed by a series of alternating synchronization bits.

14. (canceled)
15. (currently amended) The device of claim ~~[[14]]~~ 13, wherein said device is configured and/or programmed to transmit other data back to said master device at the ascertained transmission frequency.
16. (original) The device of claim 15, wherein said slave device is a detonator and said master device is a blasting machine.
17. (currently amended) A system for transferring data comprising:
 - a) a bus;
 - b) at least one master device including means for connection to said bus, said master device including means for transmitting, at a frequency that is continuously-variable and is not selected a priori, data that includes synchronization bits and bits conveying other information; and
 - c) at least one slave device including means for connection to said bus, said slave device including means for

ascertaining transmission frequency by sampling the bit width of at least some synchronization bits and means for receiving said bits conveying information at the ascertained transmission frequency;

wherein said data comprises a packet including two or more words each containing synchronization bits, and wherein said means for ascertaining transmission frequency samples the bit width of at least some synchronization bits of multiple words of said packet, and wherein said sampled multiple words are separated by one or more words containing bits conveying other information, and wherein said data comprises a packet that includes two or more words each containing an initial non-alternating portion followed by a series of alternating synchronization bits.

18. (previously presented) The system of claim 17, wherein said bus has encountered transmission conditions that limit the possible transmission frequency on the system, which conditions are not known in advance of establishing the system but are encountered after establishment of the system, and wherein said master device is capable of varying its transmission frequency during transmission, if said transmission frequency exceeds said possible transmission frequency under said encountered transmission conditions, so as to equal a frequency that is within said possible transmission frequency under said encountered transmission conditions.

19. (previously presented) The system of claim 18, wherein said slave device is configured and/or programmed to transmit other data back to said master device at the ascertained transmission frequency.
20. (original) The system of claim 19, wherein said slave device is a detonator and said master device is a blasting machine.
21. (previously presented) The system of claim 17, wherein said bus is a 2-line serial bus.
22. (currently amended) The device of claim [[14]] 13, wherein the slave device and master device are connected by a 2-line serial bus.
- 23-28. (canceled)
29. (previously presented) The method of claim 1, wherein said steps of transmitting and receiving are performed asynchronously.
30. (previously presented) The device of claim 13, wherein said device is configured and/or programmed to receive and transmit data asynchronously.
31. (previously presented) The system of claim 17, wherein said master device and said slave device are configured and/or programmed to receive and transmit data asynchronously.